

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of the claims in the above-referenced patent application:

Listing of Claims:

Claim 1. (Currently Amended) A system for dispensing items comprising;
a dispenser comprising a plurality of dispensing paths for dispensing said items;
a sensing unit for measuring a physical characteristic of each of said dispensed items;
a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and
a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers, wherein said dispenser comprises:

a feeder bowl for receiving said items and for supplying said items to said plurality of dispensing paths;
a first vibration device for vibrating said feeder bowl;
a rotation drive for rotating said each of said dispensing paths; and
at least one second vibration device for vibrating each of said dispensing paths,
wherein a control unit controls a rotational speed of said rotation drive and a vibration of said at least one second vibration device, such that said dispensing paths dispense said items singularly.

Claim 2. (Original) The system of claim 1, wherein said dispenser comprises a dispensing head positioned adjacent to each of said plurality of dispensing paths to receive said dispensed items.

Claim 3. (Currently Amended) A system for dispensing items comprising:
a dispenser comprising a plurality of dispensing paths for dispensing said items;
a sensing unit for measuring a physical characteristic of each of said dispensed items;
a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and

a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers, wherein said dispenser comprises a dispensing head positioned adjacent to each of said plurality of dispensing paths to receive said dispensed items The system of claim 2, wherein said dispensing head comprises:

at least one holding chamber, wherein said at least one holding chamber directs each of said dispensed items, the measured physical characteristic of which is within said predetermined range of physical characteristics, to one of said container chutes and diverts each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, to one of said diversion chutes.

Claim 4. (Original) The system of claim 3, wherein said at least one holding chamber comprises two doors mounted pivotally to said dispensing head.

Claim 5. (Currently Amended) A system for dispensing items comprising:
a dispenser comprising a plurality of dispensing paths for dispensing said items;
a sensing unit for measuring a physical characteristic of each of said dispensed items;

a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and

a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers, wherein said dispenser comprises a dispensing head positioned adjacent to each of said plurality of dispensing paths to receive said dispensed items The system of claim 2, wherein said dispensing head further comprises:

a first chamber;

a second chamber; and

a bifurcation device for directing items to one of said first chamber and said second chamber.

Claim 6. (Original) The system of claim 2, further comprising:

a star wheel, wherein said star wheel comprises a plurality of container-receiving grooves for positioning each of said containers in alignment with one of said dispensing heads and one of said container chutes to receive said dispensed items.

Claim 7. (Currently Amended) A system for dispensing items comprising:
a dispenser comprising a plurality of dispensing paths for dispensing said items;
a sensing unit for measuring a physical characteristic of each of said dispensed items;

a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and

a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers, wherein said dispenser comprises a dispensing head positioned adjacent to each of said plurality of dispensing paths to receive said dispensed items; and

a star wheel, wherein said star wheel comprises a plurality of container-receiving grooves for positioning each of said containers in alignment with one of said dispensing heads and one of said container chutes to receive said dispensed items ~~The system of claim 6, wherein said star wheel further comprises:~~

a plurality of apertures, wherein each of said plurality of diversion chutes communicates with at least one of said plurality of apertures and wherein said star wheel positions each of said plurality of container chutes and each of said plurality of diversion chutes in alignment with a respective one of said dispensing heads.

Claim 8. (Currently Amended) A system for dispensing items comprising:
a dispenser comprising a plurality of dispensing paths for dispensing said items;
a sensing unit for measuring a physical characteristic of each of said dispensed items;

a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and

a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers, wherein said dispenser comprises a dispensing head positioned adjacent to each of said plurality of dispensing paths to receive said dispensed items; and

a star wheel, wherein said star wheel comprises a plurality of container-receiving grooves for positioning each of said containers in alignment with one of said dispensing heads and one of said container chutes to receive said dispensed items The system of claim 6, further comprising:

a rotation drive for rotating said star wheel, wherein said star wheel positions a respective each of said containers, each of said plurality of container chutes, and each of said plurality of diversion chutes in alignment with a respective one of said dispensing heads.

Claim 9. (Original) The system of claim 1, wherein said physical characteristic comprises a volume, a weight, or a density of each of said dispensed items.

Claim 10. (Original) The system of claim 2, wherein each of said plurality of dispensing paths comprises one or more item-dispensing channels and wherein said sensing unit and said dispensing head are positioned adjacent to each of said one or more item-dispensing channels.

Claim 11. (Currently Amended) The system of claim 1, further comprising;

[[a]] said control unit for receiving said measured physical characteristic of each of said dispensed items from said sensing unit and comparing said measured physical characteristic of each of said dispensed items to a predetermined range of physical characteristics for that item.

Claim 12. (Currently Amended) A system for dispensing items comprising:

a dispenser comprising a plurality of dispensing paths for dispensing said items;
a sensing unit for measuring a physical characteristic of each of said dispensed items;

a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers;

a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of

physical characteristics, away from said containers, wherein said dispenser comprises a dispensing head positioned adjacent to each of said plurality of dispensing paths to receive said dispensed items; and

said control unit for receiving said measured physical characteristic of each of said dispensed items from said sensing unit and comparing said measured physical characteristic of each of said dispensed items to a predetermined range of physical characteristics for that item
The system of claim 11, further comprising:

a rotation drive for rotating said dispenser; and

at least one vibration device for vibrating each of said dispensing paths,

wherein said control unit controls a rotational speed of said rotation drive and a vibration of said at least one vibration device, so that said dispensing paths dispense said items singularly.

Claim 13. (Currently Amended) The system of claim 2, further comprising:

[[a]] said control unit, wherein said sensing unit transmits said measured physical characteristic of each of said dispensed items to said control unit and wherein said control unit activates said dispensing head to direct each of said dispensed items, the measured physical characteristic of which is within said predetermined range of physical characteristics, to one of said plurality of container chutes.

Claim 14. (Original) The system of claim 13, wherein said control unit activates said dispensing head to divert each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, to one of said diversion chutes.

Claim 15. (Currently Amended) A system for dispensing items comprising:

a dispenser comprising a plurality of dispensing paths for dispensing said items;

a sensing unit for measuring a physical characteristic of each of said dispensed items;

a plurality of container chutes for directing each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers;

a plurality of diversion chutes for diverting each of said dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of

physical characteristics, away from said containers; and The system of claim 1, further comprising:

a rejection system, wherein said rejection system comprises a rejection conveyor positioned in communication with said plurality of diversion chutes.

Claim 16. (Original) The system of claim 15, wherein said rejection conveyor conveys said diverted items from said diversion chutes to a rejection bin.

Claim 17. (Canceled).

Claim 18. (Original) A dispensing system comprising:

a rotary, vibratory dispenser for receiving and dispensing items comprising:

a rotation drive for rotating said dispenser;

a plurality of dispensing paths; and

at least one vibration device for vibrating said plurality of dispensing paths, so that said plurality of dispensing paths dispenses said items singularly;

at least one sensing unit for measuring a physical characteristic of each of said singularly-dispensed items;

a plurality of container chutes for directing each of said singularly-dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and

a plurality of diversion chutes for diverting each of said singularly-dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers.

Claim 19. (Canceled).

Claim 20. (Original) A dispensing system comprising:

a dispenser for receiving and dispensing items comprising:

a plurality of dispensing paths

at least one rotation drive for rotating said plurality of dispensing paths;

and

at least one vibration device for vibrating said plurality of dispensing paths, such that said plurality of dispensing paths dispenses said items singularly;

at least one sensing unit for measuring a physical characteristic of each of said singularly-dispensed items;

a plurality of container chutes for directing each of said singularly-dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics, to containers; and

a plurality of diversion chutes for diverting each of said singularly-dispensed items, the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics, away from said containers.

Claim 21. (Currently Amended) A dispensing method comprising the steps of:
dispensing items from a dispenser;
measuring a physical characteristic of each of said dispensed items;
delivering said items to and holding said items within at least one holding chamber;

directing each of said items the measured physical characteristic of which is within a predetermined range of physical characteristics from said at least one holding chamber to a container chute; and

diverting each of said items the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics from said at least one holding chamber to a diversion chute.

Claim 22. (Original) The method of claim 21, further comprising the step of:
guiding said diverted items to a rejection conveyor.

Claim 23. (Original) The method of claim 22, further comprising the step of:
conveying said diverted items from an outlet of said diversion chute to a rejection bin.

Claim 24. (Original) The method of claim 21, further comprising the steps of:
identifying each of said dispensed items, the measured physical characteristic of which is within a predetermined range of physical characteristics; and
identifying each of said dispensed items, the measured physical characteristic of which is greater than or less than a predetermined range of physical characteristics.

Claim 25. (Original) The method of claim 21, wherein the step of measuring a physical characteristic of each of said dispensed items comprises the step of measuring a density, a weight, or a volume of each of said dispensed items.

Claim 26. (Original) The method of claim 21, wherein the step of dispensing items comprises the step of dispensing items from a plurality of item-dispensing channels.

Claim 27. (Original) The method of claim 21, wherein the step of directing said items to said container chute comprises the step of directing a predetermined quantity of items to said container chute.

Claim 28. (Original) The method of claim 21, further comprising the steps of: directing said items through said container chute to a container.

Claims 29 and 30. (Canceled).

Claim 31. (New) A dispensing method comprising the steps of:
dispensing items from a dispenser;
measuring a physical characteristic of each of said dispensed items;
directing each of said items the measured physical characteristic of which is within a predetermined range of physical characteristics to a container chute;
diverting each of said items the measured physical characteristic of which is greater than or less than said predetermined range of physical characteristics to a diversion chute;
and
guiding said diverted items to a rejection conveyor.

Request for Reconsideration:

Previously, the Examiner identified two groups of claims in this application: Group I (claims 1-20) and Group II (claims 21-30), which allegedly defined two patentably distinct inventions. Applicant elected to pursue Group I (claims 1-20), with traverse. Applicant now acknowledges with appreciation that the Examiner has withdrawn the restriction requirement, the Examiner has considered claims 1-30 in this Office Action.

Applicant is canceling claims 17, 19, 29, and 30, without prejudice. In addition, Applicant is incorporating the limitations of claim 17 into claim 1 and is further amending claim 1 to overcome the indefiniteness rejections of claim 17. Applicant also is amending claims 11 and 13 to indicate proper antecedent basis. In addition, Applicant is rewriting claims 3, 5, 7, 8, 12, and 15 in independent form to include the limitations of their base claims and any intervening claims. Moreover, Applicant is adding new claim 31, which is claim 21 rewritten in independent form. No new matter is added by these amendments, and the amendments are fully supported by the specification. In view of the addition of seven (7) independent claims and the cancellation of three (3) independent claims, excess claim fees of \$800 are due for the net increase of four (4) independent claims. Applicant is including a check including this amount. Nevertheless, in the event of any variance between this amount and the fees determined by the PTO, please charge any such variance to the undersigned's Deposit Account No. 02-0375. Applicant respectfully requests that the Examiner enter these amendments and reconsider the application in view of the foregoing amendments and remarks.